**EDOS Network Prototyping**

Objectives of EDOS Prototyping

- **Select and install the core set of network and system services COTS product**

- **Tailor and extend the COTS products**

- **Demonstrate that product performance can meet the monitoring requirements and response times**

- **Show use of Simple Network Management Protocol (SNMP) to support network and system management functions and software processes**

EDOS

EOS Data and Operations System

EDOS Network Prototyping

TRW

Context of Prototyping in EDOS
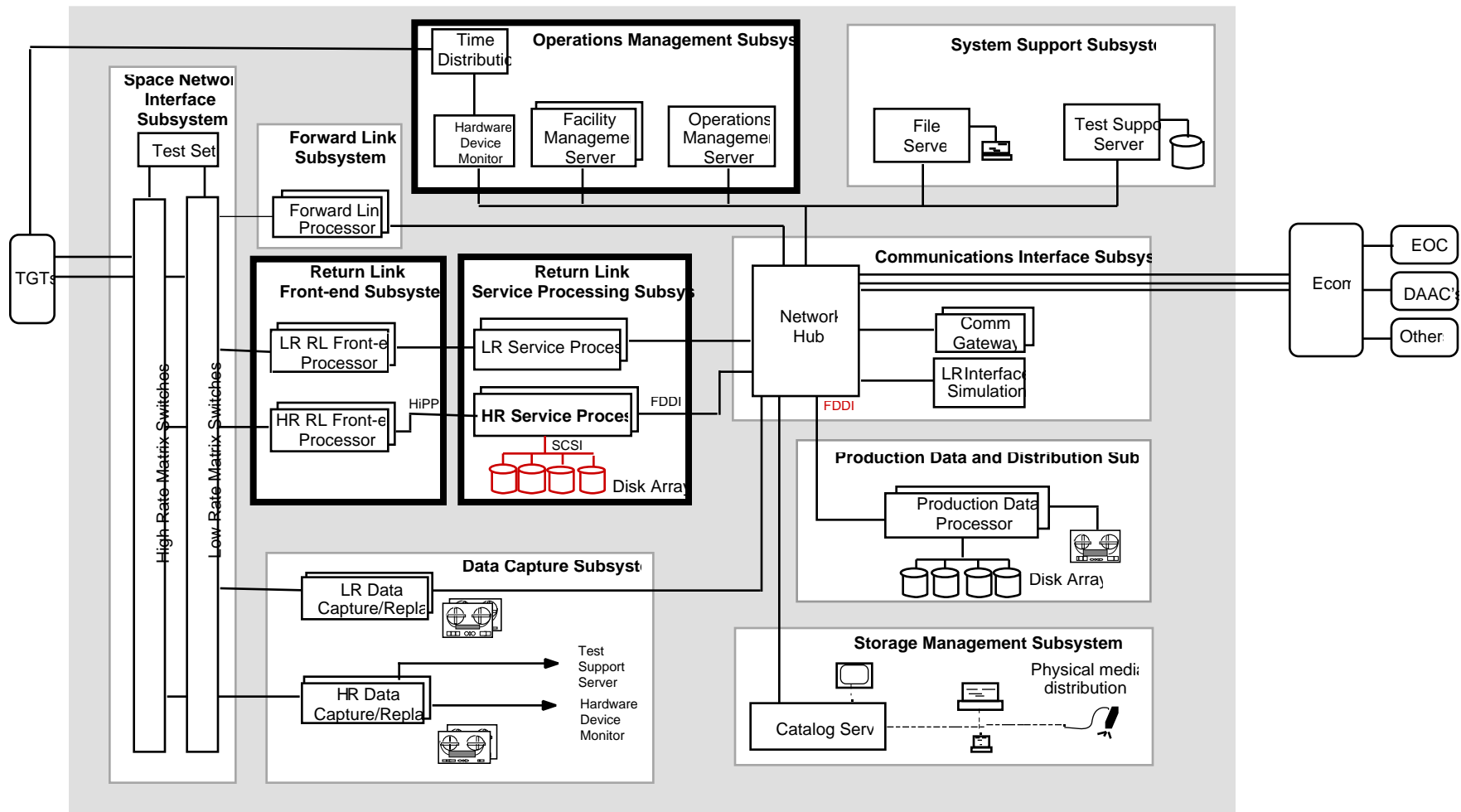
Prototype Architecture

- **Hardware components**
  - **(1) IBM C10 Server**
  - **(4) IBM 25Ts**
- **Software components**
  - **COTS**
    - **IBM NetView/6000**
    - **Legent Domain*Manager**
    - **SNMP Research Inc. (SRI) Utilities**
  - **Developed software**
    - **Custom Agent**

Accomplishments

- **Central Network Management Component - NetView/6000**
  - ◆ **customized map, menu and screens for EDOS**
  - ◆ **demonstrated the flow of processing**
  - ◆ **command and received status from the Subnetwork Manager**
  - ◆ **integrated custom Management Information Base (MIB)**
- **Subnetwork Manager Component - Domain*Manager**
  - ◆ **customized configuration files for Domain*Manager**
  - ◆ **integrated custom MIB**
  - ◆ **monitored the Return Link(RL) Simulator custom SNMP agent**
  - ◆ **received commands from the Central Network Manager**
  - ◆ **sent status to Central Network Manager**

11/13/95

Accomplishments

- **Custom SNMP Agent - SNMP Research Inc. Agent Development Tool**

  - **simulated the Return Link(RL) Front End Processing**

    - ◆ **accept and implement configuration commands**
    - ◆ **collect status data**

- **Performance testing**

  - **NetView/6000 - simultaneously poll network hosts retrieving status variables once per second**

  - **Domain*Manager - simultaneously poll a subset of network hosts retrieving status variables once per second**

11/13/ 95

Conclusions

- **NetView/6000**

  - **Product training helped the NetView/6000 customization learning curve immensely**

  - **User interface provided by NetView/6000 can be cumbersome for some EDOS specific functions**

  - **Successful completion of all performance tests with less than 0.1% missing responses**

- **Domain*Manager**

  - **Robustness of Domain*Manager is questionable**

  - **Product is not user/developer friendly and would be unusable without training**

  - **Encountered problems with Domain*Manager during performance testing**

Conclusions

- **SNMP Research Inc. Agent Development Tool**

    - **Gained insight into effort required to develop the custom agent**

- **Based on size of EDOS network and NetView/6000 test results, concluded subnetwork manager, i.e. Domain* Manager, not needed**